

Petitioned Health Consultation

**North 27th Street
Tacoma, Pierce County, Washington**

February 2, 2001

Contact information revised February 27, 2004

**Prepared by
Washington State Department of Health
Under Cooperative Agreement with the
Agency for Toxic Substances and Disease Registry**



Foreword

The Washington State Department of Health (DOH) has prepared this health consultation in cooperation with the Agency for Toxic Substances and Disease Registry (ATSDR). ATSDR is part of the U.S. Department of Health and Human Services and is the principal federal public health agency responsible for health issues related to hazardous waste. This health consultation was prepared in accordance with methodologies and guidelines developed by ATSDR.

The purpose of this health consultation is to identify and prevent harmful human health effects resulting from exposure to hazardous substances in the environment. The health consultation allows DOH to respond quickly to a request from concerned residents for health information on hazardous substances. It provides advice on specific public health issues. DOH evaluates sampling data collected from a hazardous waste site, determines whether exposures have occurred or could occur, reports any potential harmful effects, and recommends actions to protect public health.

For additional information or questions regarding DOH, ATSDR or the contents of this health consultation, please call the Health Advisor who prepared this document:

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Background

The Washington State Department of Health (DOH) prepared this health consultation in response to a written letter of petition to the Agency for Toxic Substances and Disease Registry (ATSDR). ATSDR received the letter of petition from a private citizen in August 2000, requesting that some form of investigation be conducted to determine the causes of a number of reported adverse health conditions. The petition letter specifically requested that ATSDR suggest medical treatment or diagnostic tools to help victims of a suspected disease cluster surrounding the petitioner's home. DOH, under cooperative agreement with the ATSDR initially investigated the petition request and prepared this consultation in response to the petition.

Discussion

The petitioner is a 62-year-old male who lived at 3320 North 27th Street, Tacoma, Washington, for 30 years. The home was constructed in 1924 and the petitioner moved into the home in October 1970. The residence is located within the historical district of the City of Tacoma on the south shore of the Commencement Bay Nearshore/Tideflats Superfund site. The petitioner has not lived in the residence since 1998. A review of the Pierce County 1999 parcel data indicated that the average home value slightly exceeds \$166,000 within a one-half mile radius of this residence.

The letter of petition indicated that a number of homes in the neighborhood have required foundation repair due to settling of residential lots in the area. It was suggested that the cause of the settling was due to the fact that the homes were constructed on an old sawmill pond and that decaying wood debris (logs) were causing the ground to become unstable. Mill ponds were commonly used to manage raw logs prior to processing into timber. There were also allegations that the City of Tacoma used the mill pond area as a landfill in the early 1900s. This was based upon experiences of the petitioner when working on foundation repair for his home as well as digging in his yard. Non-biodegradable items such as plates, bottles, and metal decorations were reportedly found regularly at his residence when disturbing soils.

The petition letter outlined a number of adverse health conditions experienced by the petitioner and his neighbors. The letter of petition strongly suggests that toxic substances have been disposed of under the residence located at 3220 North 27th Street and that there is a disease cluster of neurological, physiological, and psychological disorders in this neighborhood.¹ The petitioner is primarily concerned about the similarity of symptoms experienced by himself and neighbors such as short-term memory loss, patterns of dementia, numbness in extremities, and symptoms similar to multiple sclerosis.²

A site visit was conducted to the residence on September 18, 2000, by Trace Warner of DOH and Richard Kauffman of ATSDR. Photos taken during the site visit are listed in Appendix A. During the site visit it was noted the home was presently not inhabited and appeared to have

undergone a limited amount of foundation repair which was not completed. The residence was also surrounded by an orange plastic mesh temporary fence around the perimeter of the property.

During the site visit a next-door neighbor also indicated that she would uncover garbage when working in her flower beds or in her garden. Discussions with individuals living in the area indicate that it is not uncommon to discover plates, glassware, dishes and tin cans when digging in yards or disturbing soils. It has been suggested this was due to the common practice of individuals burying garbage on private property during the early 1900s.

The Washington State Department of Ecology was contacted in order to determine if they have had any involvement with the residence in the past.³ There has been no previous involvement by Ecology. The Tacoma Pierce County Health Department (TPCHD) was also contacted and they also have not had any involvement with the residence, nor were they aware of any historic landfills at the 3220 N. 27th street location.⁴

In an effort to determine if a mill pond was located within the vicinity of the residence, the Tacoma Public Library was contacted on three occasions. Representatives from the historical Northwest Room indicated that historical maps exist (Sandborn Fire Insurance maps) which span from 1885-1965 and provided copies of them for review. A review of these maps (1896 and 1912) did not indicate the presence of a saw mill or mill pond in the vicinity of the residence at 3220 N. 27th street. Both short-plat maps are listed in Appendix A.

Following the site visit, the petitioner was contacted in an effort to obtain additional information about nature of the health concerns and provide additional background on the history of events leading up to the creation of the petition request. The petitioner indicated that he suspected toxic substance deposition and/or a disease cluster around his former residence at 3220 N. 27th street.⁵ The petitioner has two children (27-year-old son and 30-year-old daughter) and worked in the shipyards of the Commencement Bay area. Upon moving into the residence in 1970, a strong unpleasant odor was noticeable emanating from the soil in the unfinished basement.⁶ During 1998 when excavating dirt for foundation repair, the petitioner indicated that "...my own incapacitation began to worsen rapidly."⁷

The petition letter outlines a number of reported adverse health conditions of neighbors that used to live next door (now deceased) which included non-specific dementia, neurological disabilities, and seizures. According to the petition letter, the granddaughter of the neighbors was diagnosed with a brain tumor and the girl's physician suggested the cause of the tumor may have been environmentally related to the grandparents residence.⁸

The alleged health effects listed in the petition letter were of a very generic nature and therefore they could not be evaluated. DOH would be interested in obtaining any additional information the petitioner may be able to provide regarding the history of this residence and the potential for the existence of environmental contamination.

DOH would be interested in contacting the petitioner's present and past physician to discuss the potential for adverse health effects to have occurred as a result of living in the home for the past 30 years. In addition, DOH will attempt to contact the physician of the next door neighbor's granddaughter to determine the nature of her brain tumor. DOH/ATSDR will assist the petitioner in contacting the nearest Association of Occupational and Environmental Clinic (AOEC) at Harborview Medical Center. This health consultation, and a copy of the petition letter, will be provided to the Department of Ecology for potential follow-up action.

ATSDR Child Health Initiative - Exposure Pathways and Children

ATSDR and DOH recognize the unique vulnerability of infants and children, and that they require specific site-specific evaluation regarding exposure to environmental contaminants. Infants, children, and developing fetuses may be at greater risk for potential exposure and adverse health effects compared to older children or adults. Children are more likely to engage in outdoor activities which put them into direct contact with contaminants in soil. Frequent hand-to-mouth activities account for increased exposure in young children via ingestion and dermal contact.

Pound-for-pound body weight, children drink more water, eat more food, and breathe more air than adults. Children within the first six months drink seven times as much water (per pound) than the average adult.⁹ As a result, because of the unique characteristics of children, given the same level of exposure, children receive a significantly higher contaminant dose than adults. For the purposes of this health consultation, children are defined as "the period from conception to maturity at 18 years of age, when all biological systems have matured.

There are presently no children living at this residence. The residence has not been occupied since 1998 and the utilities have been disconnected. The residence is surrounded by a plastic mesh fence and is posted with no trespassing signs. Although children may live in the neighborhood, there currently is no information to suggest that exposures to hazardous substances are occurring or have occurred in the past.

Conclusions

The North 27th Street residence site represents an indeterminate public health hazard due to a lack of environmental data to evaluate. Allegations of environmental contamination and adverse health effects (petitioner and neighbors in the vicinity) exist but were unable to be verified.

Recommendations

1. DOH will follow-up with petitioner to obtain the name and contact information of the petitioner's current and most recent physician. This information will be provided to ATSDR for a possible medical records review.
2. DOH will contact petitioner and provide contact information for an Association of Occupational & Environmental Clinic (AOEC).
3. The petitioner should provide any additional information about his residence, historic land use, or adverse health conditions to DOH for review.
4. DOH will provide a copy of this health consultation to the Washington State Department of Ecology and Tacoma Pierce County Health Department for potential follow-up action.

PREPARER OF REPORT

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References

1. Letter of petition to ATSDR for 3220 North 27th Street. August 3, 2000. p. 5.
2. Personal communication with author of petition letter, September 18, 2000.
3. Personal communication with representative of the Washington State Department of Ecology Toxic Cleanup Program. September 18, 2000.
4. Personal communication with representative of the Tacoma Pierce County Health Department. September 18, 2000.
5. Personal communication with author of petition letter, September 18, 2000.
6. Letter of petition to ATSDR for 3220 North 27th Street. August 3, 2000. p. 3.
7. Letter of petition to ATSDR for 3220 North 27th Street. August 3, 2000. p. 3.
8. Letter of petition to ATSDR for 3220 North 27th Street August 3, 2000. p. 4.
9. Agency for Toxic Substances and Disease Registry. Guidance on Including Child Health Issues in Division of Health Assessment and Consultation Documents. July 2, 1998.

APPENDIX A: Figures

Figure 1: Site Visit Photos

Figure 2: Area Short-plat Parcel Maps (1896 and 1912)

Figure 3: Spatial Analysis and Demographics GIS Map

Certification

This North 27th Street, Tacoma, Washington Health Consultation was prepared by the Washington State Department of Health under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). It is in accordance with approved methodology and procedures existing at the time the health consultation was begun.

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The Division of Health Assessment and Consultation, ATSDR, has reviewed this public health consultation and concurs with the findings.

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